WORKPLACE SAFETY AND HEALTH IN INDIANA

From The
National Institute for Occupational Safety and Health

State Profile 2002

Delivering on the Nation's promise:
Safety and health at work for all people through prevention.

The National Institute for Occupational Safety and Health

NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is located in the Department of Health and Human Services in the Centers for Disease Control and Prevention. The NIOSH mission is to provide national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services. As part of its mission, NIOSH supports programs in every state to improve the health and safety of workers. NIOSH has developed this document to highlight recent NIOSH programs important to workers and employers in Indiana.

The Burden of Occupational Illness and Injury in Indiana

- In Indiana, there are approximately 3 million individuals employed in the workforce.[1]
- In 2000, 159 workers died as a result of workplace injuries.[2]
- The construction industry had the highest number of fatalities, followed second by the agriculture, forestry, and fishing industry, and third by transportation and public utilities.[2]
- In 1999, the most recent year for which data are available, the rate of fatal workplace injuries was 5.7 deaths per 100,000 workers–above the national average rate of 4.5 deaths per 100,000 workers.[2]
- In 2000, there were 184,200 nonfatal workplace injuries and illnesses in Indiana.[3]

The Cost of Occupational Injury and Illness in Indiana

In 2000, the most recent year for which data are available, a total of $550.4 million was paid for workers' compensation claims by Indiana private insurers and self-insured employers.[4] This figure does not include compensation paid to workers employed by the federal government and also underestimates the total financial burden for private sector businesses, since only a fraction of health care costs and earnings lost through work injuries and illnesses is covered by workers' compensation. Chronic occupational illnesses like cancer are substantially under-reported in workers' compensation systems because work-relatedness is often difficult to establish.

How NIOSH Prevents Worker Injuries and Diseases in Indiana

Health Hazard Evaluations (HHEs) and Technical Assistance

NIOSH evaluates workplace hazards and recommends solutions when requested by employers, workers, or state or federal agencies. Since 1993, NIOSH has responded to 92 requests for HHEs in Indiana in a variety of industrial settings, including the following example:

Indianapolis, Indiana: Infectious Agents and Chemicals
In 1998-1999, NIOSH evaluated employee exposures to infectious agents and chemicals during the cleaning, overhauling, and repair of aircraft lavatory tanks and hardware at a commercial airline's maintenance facility. Investigators sampled the air and solution from lavatory tanks and concluded that the airborne concentrations of bacteria and chemicals were low. Although no laboratory bacteria grew in the tanks' solution, some infectious agents were present. NIOSH recommendations to management included continuing to train employees to use personal protective equipment effectively; stressing the importance of personal hygiene practices; improving ventilation systems; and ensuring the aircraft lavatory cleaning room is regularly cleaned.

Fatality Assessment and Control Evaluation (FACE) Investigations

NIOSH developed the FACE program to identify work situations with a high risk of fatality and to formulate and disseminate prevention strategies. Since 1995, 12 FACE investigations have been conducted in Indiana, including the following example:

Indiana: Furnace Technician Dies Trying to Put Out Trailer Fire
On January 22, 1997, a truck driver and a spotter working for a fiberglass manufacturer were unloading a trailer parked at one of the company's plants, under three energized power lines. When the trailer was elevated, it became entangled in the power lines above it and electrical energy melted its hydraulic box. Both the spotter and the driver got away, but the ground was wet and a fire started. The victim ran out of his office, attempting to put out the fire with a fire extinguisher, when there was an electrical energy surge and he was electrocuted. The FACE investigator concluded that employers should: install barriers to prevent accidental contact with energized lines or equipment; ensure that use of vehicles and other equipment in hazardous areas is controlled at all times by designated employees; and train employees to use fire extinguishers correctly.

Fire Fighter Fatality Investigation and Prevention Program

The purpose of the NIOSH Fire Fighter Fatality Investigation and Prevention Program is to determine factors that cause or contribute to fire fighter deaths suffered in the line of duty. NIOSH uses data from these investigations to generate fatality investigation reports and a database of case results that guides the development of prevention and intervention activities. Since 1997, there have been eight fire fighter fatality investigations in Indiana, including the following recent example:

Indiana: Fire Fighter/Diver Dies During Training
On August 13, 2000, a 28-year-old male fire fighter/diver died during a training exercise. The victim was a member of a career fire department's dive and rescue team. The day of the incident, a weighted baby doll was placed in the water, approximately 100 feet from the shore, and the area was marked by buoys. The victim, his assigned partner, and a second team of two additional divers swam to the buoys to perform underwater searches, following the buoy lines. While searching at a depth of 70 feet, the divers from both teams became separated from their partners. Three of the divers surfaced, one of them after becoming entangled in the lines and receiving assistance from another to get free. The victim was eventually found

entangled in one of buoy lines. NIOSH investigators concluded that, to minimize the risk of similar incidents, fire departments should ensure that: communication is maintained among all divers and personnel on the surface; underwater searches are completed individually to avoid entanglements; equipment is checked before each dive; and divers are trained to rescue other divers in distress.

Building State Capacity

Graduate Training Program

NIOSH funds a master's and doctoral training program in industrial hygiene at Purdue University School of Health Sciences. Graduates meet the extensive and agricultural needs in the state and in the surrounding region. In fiscal year 2001, 22 students were enrolled and nine students were graduated.

Extramural Programs Funded by NIOSH

The following are examples of recent research grants, training grants, or cooperative agreements funded by NIOSH in the state of Indiana.

Community Partners for Healthy Farming

Community Partners projects involve collaboration between researchers and stakeholders in the community. Through this program, NIOSH currently funds scientists at Purdue University to evaluate the effectiveness of interactive CD-ROM and world wide web multimedia programs to teach youth critical agricultural safety and health topics, such as safe operation of tractors and machinery. Benefits of this approach include: youth can learn in a self-directed setting without enrolling in a conventional course; parents have access to an educational tool to teach tractor and machinery safety to their children, most of whom are not required by law to enroll in a formal safety program; and the materials developed may be used to teach tractor and machinery safety to adults with limited literacy skills.

A Partnership to Prevent Injuries and Fatalities in Construction

NIOSH supports the Construction Safety Alliance (CSA), a coalition of universities, labor organizations, construction companies, owners of construction projects, trade associations, and local and state governments. CSA's goal is to embed safety measures as critical components in construction by linking safety with quality and productivity. Projects initiated in fiscal year 2001 include: prevention of falls from elevations; safer trenching operations; and development of web-based dissemination tools and a database for safety practices in construction. Expected outcomes include: developing effective interventions to reduce fatal and nonfatal injuries in trenching and high-elevation projects; a user-friendly interactive database that companies can use to track injuries and illnesses and reduce associated costs; a model for best practices to promote zero accident worksites; and a prototype of demonstration projects in trenching and falls from elevations.

Additional information regarding NIOSH services and activities can be accessed through the NIOSH home page at http://www.cdc.gov/niosh/homepage.html or by calling the NIOSH 800-number at 1-800-356-NIOSH (1-800-356-4674).

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[1]U.S. Department of Labor (DOL), Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics, Current Population Survey, 2000.

[2]DOL, BLS in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999-2000.

[3]DOL, BLS in cooperation with participating state agencies, Survey of Occupational Injuries and Illnesses, 2000.

[4]National Academy of Social Insurance, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates,* May 2002.